

## Chalmers Wins World Record In 24-Hour Speedway Run

The Chalmers Company now holds the name for endurance. A stock Chalmers chassis was driven over the Sheepshead Bay speedway, 1.386 miles, in twenty-four hours at an average actual running speed of 31.09 miles per hour. This dazzling run is the highest performance ever made under the observation of the American Automobile Association.

The Chalmers thus shattered the best previous record of 1,319 miles in twenty-four hours, which was made by the Hudson in May, 1916. The start of this record-making run was made Wednesday afternoon, Aug. 1.

The Chalmers was driven by Joe Dawson all but five hours, when Joe Gardham, another member of the Chalmers factory experimental staff, took the wheel in relief.

The feat of the Chalmers is the most remarkable performance to the credit of any motor car. The Hudson, which created a world-wide sensation when it traveled 1,319 miles in twenty-four hours, has a motor with a piston displacement of 288 cubic inches, whereas the Chalmers stock motor which traveled 1,386 miles in the same time over the same course, has only 224 cubic inches displacement.

The canvas covering over No. 2 pit at the Sheepshead Bay speedway flapped vigorously in the wind. The sky was overcast. Alongside the pit stood a little car as little as a grayhound, as sturdy as an oak. There was a crash of thunder, vivid flashes of lightning, and then the rain descended. The men in the judges' stand crowded close to the center of the stand in an attempt to escape the downpour. The attendants at the pit sought dry spots. The starter who had been waiting patiently at the starting tape while the electrical timing device was tried out, ran for shelter. Only the little black-and-white car stood in the rain, seeming to set at defiance the elements. Soon the rain had spent its force, though it continued to fall. A white-clad driver climbed into the left-hand seat of the little car. There was a whirr of the self-starter and then a savage bark that told the gasoline had taken hold.

The little car flashed around the course and Fred J. Wagner, the starter of all America's important auto events, waved it on its way. The attempt at the record began at 5:25 p. m. Around the two-mile saucer sped the car and the tape clicked as it crossed the line. Down the slippery track and into the turns it flew, its motor murmuring as contentedly as a brook on its way to the sea.

One hour passed. Eighty-three miles was recorded, against 77 for the first hour of the former record. Round and round came the car. At 32 miles Dawson drew into the pit, took on gas, oil and water, o. k. and was gone in less than four minutes. In order to prove conclusively that the motor need not be stopped during the entire run the spark plug was changed while the motor hummed on.

Through the long night Dawson drove on, stopping at intervals for food and for fuel, oil and gas for his engine, but never for any mechanical repairs.

**Fog Obscures View.**  
A heavy fog rolled in from the East at 2 o'clock in the morning. At 3 a. m. Dawson rolled up to the pits and turned the wheel over to Joe Gardham. When Gardham drew in for gas later he said the fog was so dense on the turn against the outside rail in order to keep his bearings on the turns. A little after 5 a. m. Dawson, refreshed by a catnap, took the

wheel again. He completed twelve hours with 857 miles to the car's credit against 822 for the old record. The car's average was 79% miles an hour. At 8:55 Dawson gave way to Gardham again. At 11:28 Dawson took the wheel and stayed with it to the end.

The drivers took an orangeade and sandwiches while the car was being fed. A big chicken dinner was served in the judges' stand at 7 o'clock the first night to thirty officials and workers, and sandwiches, liquid refreshment and cigars were on tap during the entire twenty-four hours.

Fred J. Wagner's electrical timing device is used. Professor Richard Leavell, of Iowa State University, operating it. Mr. H. A. Tarantous, technical editor of Motor, was the technical representative of the A. A. A., under whose sanction the test was conducted. W. F. Sturm, Chalmers' contest manager, was in charge of the test. Moving pictures were taken and these will be sent to the various dealers and distributors desiring them.

The average an hour for the total time was 79.09 miles, the old record being 75.3. The stops took up 35 minutes 7 seconds. The actual running time was at an average of 31.09 miles an hour, against the old record of 78.6.

**Took Outside of Disc.**  
One peculiarity of the test of interest is that the speedway is measured three feet from the pole. Owing to the speed at which the Chalmers traveled its orbit was nearer the top rail than the bottom of the track so that it is safe to say that the car actually traveled over 1,390 miles. At twenty-three feet from the pole the distance would be over 1,522 miles. A mark was made at this point and the car rode continually eight to ten feet above the mark.

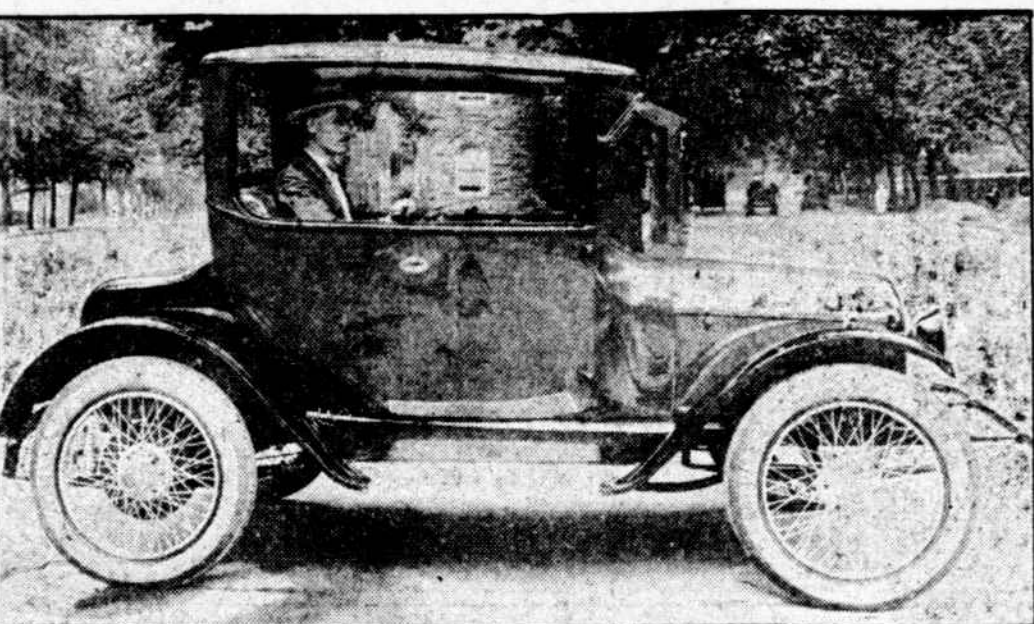
Following table for reference shows the Chalmers performance hour for hour with previous high record:

Hour.	Chalmers Performance.	Old Record.
1.....	83.53	77.77
2.....	80.163	79.124
3.....	79.242	79.232
4.....	82.224	75.308
5.....	80.494	81.389
6.....	80.484	74.463
7.....	79.563	79.542
8.....	82.645	74.616
9.....	80.725	82.608
10.....	76.801	72.770
11.....	77.878	80.350
12.....	79.967	73.923
13.....	82.109	81.104
14.....	76.115	74.1075
15.....	79.1194	80.1158
16.....	77.1271	75.1233
17.....	80.1351	77.1310
18.....	76.1429	72.1382
19.....	75.1502	79.1461
20.....	78.1580	71.1532
21.....	80.1660	65.1597
22.....	78.1738	72.1669
23.....	79.1817	71.1740
24.....	81.1898	79.1819
Chalmers performance per hour including stops.....	79.0933	
Old record.....	75.30	

Chalmers performance per hour excluding stops..... 81.09  
Old record..... 78.60  
2.49

The world's consumption of tea has tripled in the last thirty years, and the production of the 1915-1916 season broke all former records.

THE NEW DETROIT ELECTRIC with Mr. John A. Sterrett at the wheel. This car has been sold to Mr. E. J. Stellwagen, president of the Union Trust Company, of Washington, D. C. Sterrett & Fleming have sixteen new Detroit Electrics on the showroom floor here in Washington ready for immediate delivery.



## PRACTICAL PARAGRAPHS

For Everybody Who Owns an Automobile

### Emergency Rim Expander.

It is generally understood nowadays that wheels which are out of alignment cause undue tire wear. Few owners, however, realize that rims which are loose or otherwise improperly mounted will have the same effect of causing excessively rapid tire wear. A loose rim generally makes its presence known by a clicking or squeaking sound. This is not always so, for occasionally a small stone or some sand may get between the rim and felloe so as to prevent noise. The rim appears to be tight but in reality is running out of alignment and wearing out the tire.

### Descending Grades.

In driving down steep grades various resistances may be utilized to keep the car under control. If the engine is kept running and the gears are in high, there is only slight resistance. This may be increased by shifting into second speed and further increased by shifting into first. When still further resistance is needed to maintain a check on the progress of the car and it is not desired to use the brakes, the ignition may be shut off and the throttle closed. By opening the throttle the resistance is still further increased. The maximum of resistance and the best control on a dangerously steep hill may be obtained by shifting into first, switching off the ignition and applying the brakes at intervals.

### Clutch Troubles.

A great deal of clutch trouble for which the owner can find no obvious cause, is due to the fact that the clutch shaft is out of true with the center of the flywheel. This causes one side of the cone clutch to bind, while the other side is free; in the case of the disc clutch, the plates tend to hold only on one side. The result is that the clutch grabs when engaged. If persistent treatment and adjustment does

not help a clutch, it is safe to conclude that the condition mentioned is causing the trouble.

### On Upholstery.

The glossy finished leather-substitute upholstery is better than the dull finished, the latter being prone to crack or lose its coloring material through friction. Use of the dull material brings a sort of half-kiosky finish and the cracking ceases, but it is better to get the bright finish in the first place.

### When Fuses Blow.

When lighting fuses blow out one after the other, it does not pay to keep replacing them; it is something more than coincidence. Try to find out the cause and the first place to look is in the cut-out. If this portion of the lighting system is of the type that has points which may become stuck, it is very likely to cause continued fuse breakage.

### The Storage Battery.

After a storage battery is fifteen months old the dealer considers it worthless. The fact that the battery has such a comparatively brief life at best, should lead owners to give it careful treatment so as to get maximum service from it. Adding distilled water to the cells to bring the fluid up to the proper level, should be done once a week in summer and twice a month in winter. But this is not enough; the gravity of the solution may not be correct. A hydrometer syringe test is the only sure method of determining the condition of the battery and if the cells show below 19 each, they require recharging. Once every two months the battery should be taken to the service station for charging, especially if the user is a doctor or one similarly occupied, whose car is started and stopped many times each day.

### Fitting Parts.

It is just as bad to have parts fit too tightly as it is to have them too loose.

A bearing which is too tight will loosen rapidly and will pound while so doing. It is bad practice to have the bearings taken up merely by refitting the movable half. The whole bearing should be refitted, if the part is to give really good service. In some cars improper fitting of the rear main bearing will throw the clutch shaft out of alignment and cause endless trouble.

### Pseudo-Blowout Patch.

In the absence of a blowout patch a motorist recently tore up an old shirt and cemented a flat portion around the tube at the place opposite the hole in the casing. Two wrappings were made and the patch held for sixty miles.

### Operating the Windshield.

Never attempt to force the upper half of the windshield up or down by pushing on one side, especially if the shield is an old one. If the frame-work is at all weak, this method of handling will probably break the pane.

### Priming the Oil Pump.

In cars fitted with a piston-type oil pump, failure to force the oil in its proper channels may be remedied by priming the pump. This is done by disconnecting the line behind the gauge and forcing oil from a can through the pump lead, while the engine is running very slowly. When oil spurts back through the pipe, it shows that the pump is working again.

In the absence of a conventional rim expander, diagonally split rims may be spread by means of the lifting jack and two blocks of wood.

### EXPLOSIVE BULETS.

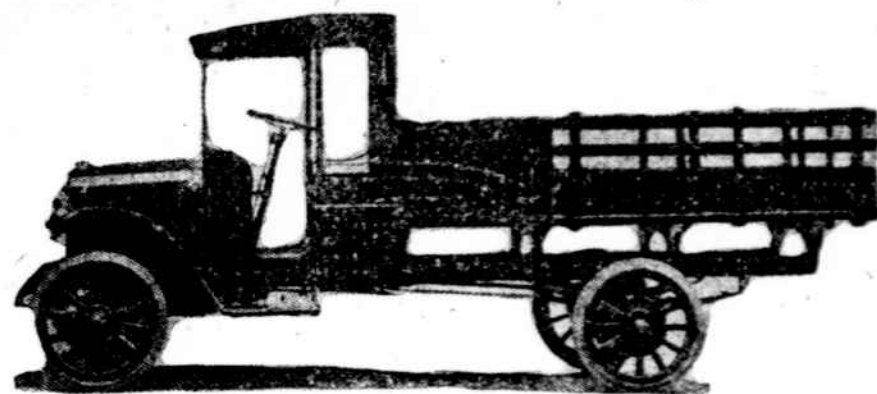
Explosive bullets are being used in the machine guns carried by Austrian and German aircraft on the eastern front, according to the Ruskoye Slovo. German prisoners in the hands of the Russians say the order to fire explosive bullets from aeroplanes has been given to all German aviators. If this be true, it gives the Teutons a distinct advantage over their adversaries, for one hit scored on the enemy's petrol tank would almost always cause a disastrous explosion.

## Can Make Immediate Deliveries On the Maxwell Truck

The Maxwell does the work at a fraction of the cost of horses. It costs less than any other truck, but no truck is better than the Maxwell. More Maxwells sold during July than all other trucks. If you are going to buy a truck it will be a Maxwell if you see one and learn what it will do for you.

### ONE-TON TRUCK CHASSIS

**\$865 F. O. B. Factory \$865**



ALL STYLES OF BODIES FURNISHED

### CHASSIS SPECIFICATIONS.

Engine—Four cylinders cast on block stroke, 4 1/2 inches bore, 3 1/2 inches cylinders and crank case integral; detachable head; valves 1 9-16 inches in diameter, location on right side and completely enclosed; crank shaft of exceptional strength; cam shaft and cams forged integrally from one piece of steel.  
Ignition—Generator ignition system.  
Cooling—Efficient Thermo-Syphon system.  
Carburetor—Special atomizer type; dash adjustment to suit starting and running in any climate.  
Transmission—Three-speed selective type; three speeds forward and reverse; enclosed in case which is bolted to fly-wheel housing; main shaft has roller bearings in front end, bronze bearings in rear end; gears are all chrome-nickel steel; heat treated.  
Lubrication—Splash system with positive oil pump.  
Gasoline Supply—Tank located in cowl, capacity 11 gallons. Positive feed even on steepest grades.  
Steering—Left-side drive with irreversible worm and gear.  
Brakes—Service and emergency, both internal expanding in rear wheel drum.

Drive—Timken-David Brown worm and gear embodied in rear axle; propeller shaft has double universal and telescopic joints.  
Axles—Front, heavy I-beam drop forged. Rear, extra heavy, with mailable iron housing. Timken roller bearings in front and rear axles.  
Wheels—Heavy artillery type wood wheels with steel rims.  
Tires—Regular equipment, solid tires (pressed on) 32x3 inches front, 32x4 inches rear. Optional equipment, solid tires (in removable rims) 32x3 inches front, 32x4 inches rear, \$20 extra; pneumatic tires 34x4 1/2 inches with demountable rims on all four wheels, one extra rim, \$30 extra.  
Springs—Semi-elliptic front and rear.  
Frame—Pressed steel construction; side members 4 1/2 inches deep of 3-16-inch steel, supported by heavy cross members.  
Capacity—2,000 pounds. Wheel Base—124 inches. Gear Ratio—7 1/4 to 1.  
Chassis Equipment—Seat, front fenders, electric headlights and tail light, electric horn, generator, storage battery 80-ampere-hour capacity, full set of tools.

### CHASSIS DIMENSIONS.

Rear of seat to rear of frame—8 ft. 6 in.  
Extreme width of frame—36 in.  
Height of top of frame from ground in rear—2 ft. 8 in.  
Weight of chassis—2,500 pounds.

**H. B. LEARY, Jr.**

1321-1323 14th St. N. W., WASHINGTON, D. C. Phones North 4434-4435.

## Announcement

1918

# Buick

## Valve-in-the-Head Motor Cars

The Buick four and six cylinder valve-in-the-head motor cars for 1918 are models of finish and refinement.

Everywhere Buick cars are recognized as the leading high-grade — popular — successful automobile — at their respective prices. The 1918 models, with more power, and with the last word in equipment, will make Buick Valve-in-the-Head Motor Cars more popular than ever.

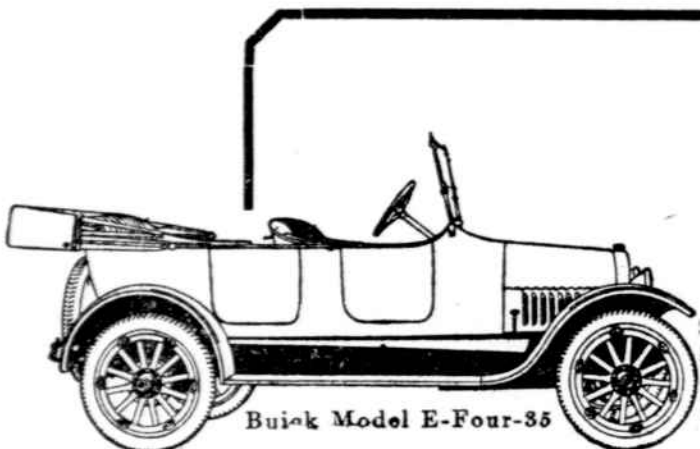
### Buick Reputation Stands Supreme

Eight standard designs in open and closed models and a light delivery car provide automobiles for every requirement.

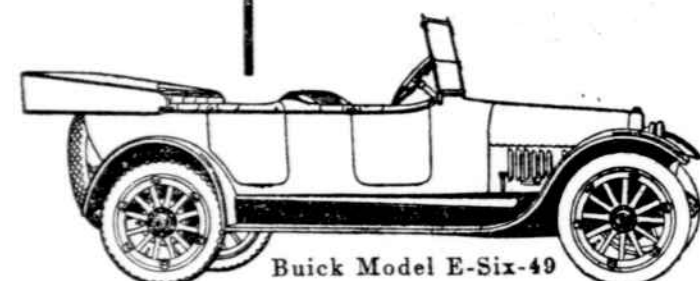
# EMERSON & ORME

DISTRIBUTERS FOR THE DISTRICT OF COLUMBIA

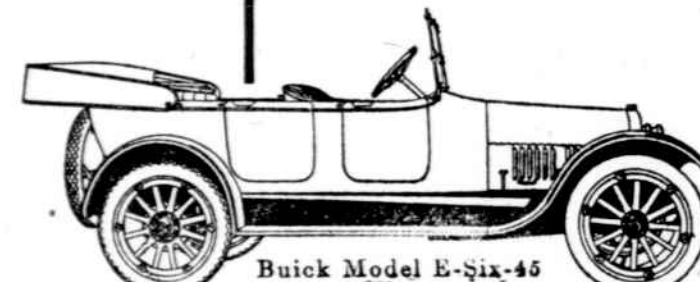
1620-1626 M Street N. W. TELEPHONE N. 8780 Largest, Newest and Best Equipped Garage in Washington



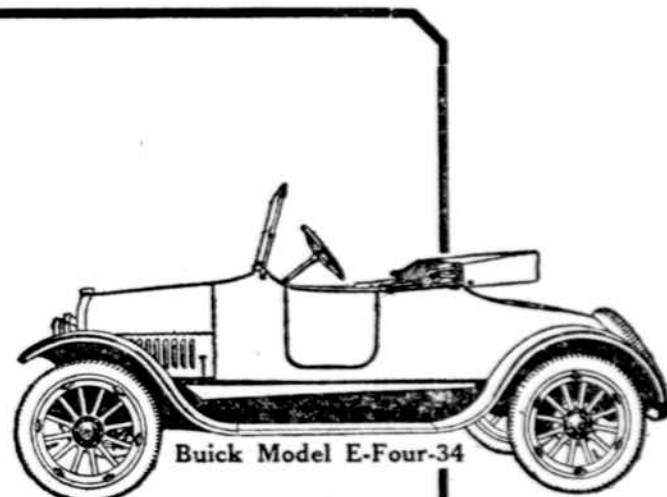
Buick Model E-Four-35



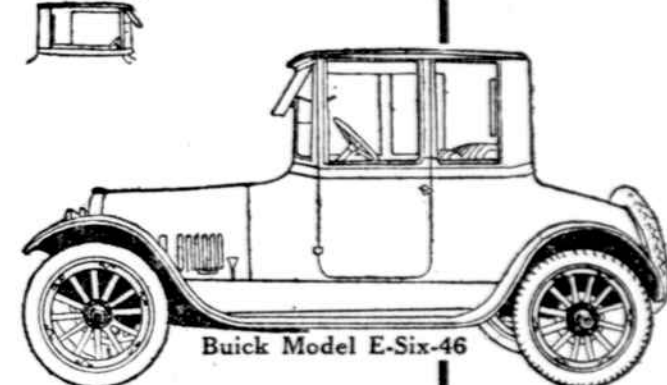
Buick Model E-Six-49



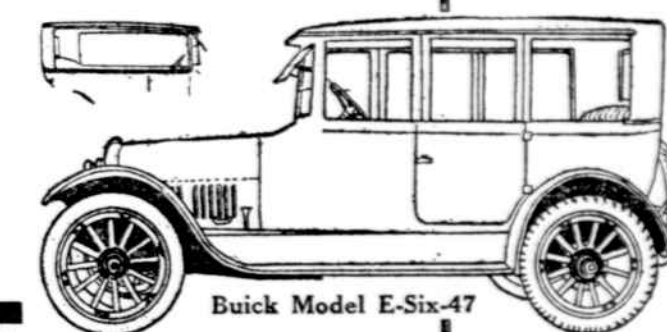
Buick Model E-Six-45



Buick Model E-Four-34



Buick Model E-Six-46



Buick Model E-Six-47